

November 29, 2007

Mr. Terry O'Clair
Director, Division of Air Quality
North Dakota Department of Health
918 East Divide Avenue, 2nd Floor
Bismarck, ND 58501-1947



Subject: Milton R. Young Station
BART Conference –11/21/2007

Dear Mr. O'Clair:

This letter is to follow-up on our discussions during the above subject meeting. As I indicated during the meeting, the methodologies the Department is pursuing with respect to the various emission limitations has merit. However, we do take exception to some of the actual limitations proposed. These are addressed below.

Unit 1

The Department proposed a SO₂ limitation of 95% removal (30 d.r.a.) or 0.12 lb/10⁶ Btu (30 d.r.a.). The Department may wish to remove the lb/10⁶ emission rate provision, as Minnkota is subject to a Consent Decree which stipulates that the removal shall be 95%.

The Department has proposed a NO_x limitation of 0.36 lb/10⁶ Btu (30 d.r.a.), except during startups. Minnkota requests the exception be extended to startups, shutdowns, and malfunctions. Unless all cyclones are in operation over-fired air and selective non-catalytic reduction technologies are ineffective or of limited effectiveness. During startups and shutdowns, individual cyclones are put in service or taken out of service as the Unit generation is increased or decreased. A malfunction can also cause cyclones to be taken out of operation.

The Department proposed a NO_x startup limitation of 1070.7 lb/hr (24-hr rolling avg.) Utilizing a NO_x lb/hr emission rate for startups that is derived from data obtained when the Unit is at full load is not appropriate; The NO_x controls are effective at full load conditions whereas the NO_x controls are ineffective or of limited effectiveness during startup. Based upon the information presented

previously in the NO_x BACT analysis, Minnkota requests a NO_x startup/shutdown/malfunction limitation of 2070.2 lb/hr (24-hr rolling average).

Unit 2

The Department proposed a SO₂ limitation of 95% removal (30 d.r.a.) or 0.12 lb/10⁶ Btu (30 d.r.a.). The limitation of 0.12 lb/10⁶ Btu (30 d.r.a.) is not acceptable to Minnkota. During periods of time when the sulfur content of the coal being burned is lower than normal, wet FGD systems can not remove as high a percentage of the SO₂ as would normally be removed, due to mass transfer limitations. Minnkota requests the SO₂ emission limitation be increased to 0.15 lb/10⁶ Btu (30 d.r.a.). As Minnkota has a SO₂ limitation of 90% removal requirement under a Consent Decree, the Department may wish to add this restriction for clarity. Therefore, the revised limitation would be 95% SO₂ removal (30 d.r.a.) or 0.15 lb/10⁶ Btu (30 d.r.a.), whichever is least restrictive, but not less than 90% removal (30 d.r.a.)

The Department has proposed a NO_x limitation of 0.35 lb/10⁶ Btu (30 d.r.a.), except during startups. Minnkota requests the exception be extended to startups, shutdowns, and malfunctions. Unless all cyclones are in operation over-fired air and selective non-catalytic reduction technologies are ineffective or of limited effectiveness. During startups and shutdowns, individual cyclones are put in service or taken out of service as the Unit generation is increased or decreased. A malfunction can also cause cyclones to be taken out of operation.

The Department proposed a NO_x startup limitation of 2011.6 lb/hr (24-hr rolling avg.) Utilizing a NO_x lb/hr emission rate that is derived from data obtained when the Unit is at full load is not appropriate; The NO_x controls are effective at full load conditions whereas the NO_x controls are ineffective or of limited effectiveness during startup. Based upon the information presented previously in the NO_x BACT analysis, Minnkota requests a NO_x startup/shutdown/malfunction limitation of 3995.6 lb/hr (24-hr rolling average).

As discussed, a more exact definition of startup is needed than initially proposed by the Department. Minnkota proposes the following:

Startup is that period of time from initial fuel combustion to the point in time when:

- The measured heat input to the boiler on a 6-hour rolling average basis is greater than or equal to (2500 million Btu/hr for Unit 1, or 4800 million Btu/hr for Unit 2); or
- The amount of time reported for the longest individual startup period during actual operation between January 1, 2001 and December 31, 2005 (61 hrs. for Unit 1, or 115 hrs. for Unit 2) elapses, whichever occurs first; or
- Fuel firing is discontinued prior to satisfying either previous criteria.

The above definition was included in our previously submitted BACT analysis.

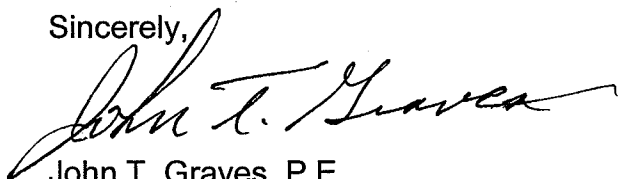
A definition of "shutdown" may also be appropriate. Minnkota proposes the following definition (if a definition is required):

Shutdown is that period of time beginning when the Unit's generation is reduced in a continuous manner with the intention of discontinuing fuel firing, until fuel firing is discontinued.

Because the anticipated NO_x emissions are based upon computer modeling of the boiler and the chemistry associated with the particular NO_x control technology, the NO_x emissions may be more or less than indicated in the BACT and BART analyses. Therefore, Minnkota reserves the right to request changes to an operating permit which may be issued, or the State Implementation Plan, which incorporates NO_x limitations.

Minnkota thanks the Department for its attention to the issues raised during our recent meeting and those in this letter. Should you have any questions concerning the above, please contact me at 701-795-4221 or at jgraves@minnkota.com.

Sincerely,

A handwritten signature in black ink, appearing to read "John T. Graves". The signature is fluid and cursive, with the first name "John" being the most prominent part.

John T. Graves, P.E.
Environmental Manager

C: David Sogard
Luther Kvernén
Craig Bleth
Kevin Thomas
Stu Libby
Tom Anseth
Young Station File